

iTester 3™ Installation & Workstation Readiness

SOUTH DAKOTA ASSESSMENT PORTAL

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1. INTRODUCTION

1.1. PURPOSE

This document is intended for information technology personnel responsible for setting up the South Dakota Assessment Portal (SDAP) online-testing environment in participating districts and schools.

There are two components of the SDAP: **the online portal**, used by state, district and school administrators, users, and teachers, and the **iTester 3™ Client**, used by students for testing. This document contains instructions for installing the iTester 3 Client and conducting workstation readiness testing on workstations and devices used for online testing.

1.2. PROCESS

To install and set up the Clients for your building:

1. Review the workstation requirements to ensure that you have the correct equipment for student testing.
2. If you have a previous installation of the SDAP Client, uninstall it from your Windows, Mac, or Linux workstation.
3. If you have a previous installation of the SDAP app on your iPads, Chromebooks, or Android devices update the app if you do not have auto-update turned on.
4. Configure your testing environment to support student testing on the Client kiosk.
5. Download and install the appropriate Client to each workstation, tablet, or other device that will be used for testing:
 - Windows
 - Mac
 - Linux
 - iPad application
 - Chromebook application
 - Android application
6. Complete the Workstation Readiness (WSR) tests, which perform a system check and provide a testing simulation scenario for each workstation or workstation configuration. Tip: To ensure that the testing environment is ready for students on time, we recommend that you run the WSR tests directly after installing the workstation Clients.
7. When all of the configurations to be used for student testing are ready, certify your site for student testing.

1.3. TECHNICAL SUPPORT

If you experience any difficulty downloading or installing the iTester software, please contact eMetric support at (877) 829-7769 or via email at support@emetric.net.

2. SDAP WORKSTATION CLIENT

2.1. ITESTER 3™ CLIENT OVERVIEW

The SDAP Workstation Client refers to the iTester 3™ Student Workstation application utilized for testing. The Client is a cross-platform, rich Internet application that employs the industry's highest standards in security, reliability, and usability for high-stakes assessment. The Client runs seamlessly on Windows, Mac OS and Linux operating systems.

Tablets such as iPads and Androids and devices such as Chromebooks are also supported.

2.2. STUDENT WORKSTATION REQUIREMENTS

It is important to set up the testing environment in accordance with the workstation requirements to ensure a proper setup for your students.

The following table lists the minimum and recommended system requirements for student workstations used in online testing:

- Minimum specifications represent the oldest operating systems and lowest levels of hardware capacity acceptable for administering SDAP in 2015.
- Recommended specifications provide the levels of computer and network capacity that are more likely to provide a smooth testing experience to students.

Important: Computers meeting only the minimum specifications should be verified thoroughly using the Workstation Readiness test to identify any performance-related issues.

Component	Minimum	Recommended
Connectivity	Must be able to connect to the Internet via wired or wireless networks	
CPU	1.2 Ghz	1.2 Ghz
Memory	512 MB	1 GB
Screen Size	9.7" screen size or larger, or "10-inch class" tablets or larger	
Screen Resolution	1024 x 768	
Windows Desktops/Laptops	Windows XP – Service Pack 3	Windows 7 – 8.1 (non-touch screen devices only)
Mac Desktops/Laptops	10.6	10.6-10.10
Linux Desktops/Laptops (64 bit)	Linux Ubuntu 10.04, Fedora Linux 14	Ubuntu 11.10, Fedora 16
Android Tablets	Android 4.0	Android 4.0-4.4
Apple iOS	iPad 2 running iOS 6	iPad 2 running iOS 7-8
Chrome OS for Chromebooks	31	31-40
Browsers (used for non-secure tests only)	Internet Explorer 9 Firefox 24 Chrome 29 Safari 5	Internet Explorer 10-11 Firefox 24-29 Chrome 29-34 Safari 5-7
Input Device Requirements	Keyboard – wired or wireless/Bluetooth; Mouse or touchpad	

Note: Zoom and Read Aloud accommodations are not available on iPad, Chromebook, or Android tablets.

3. TESTING ENVIRONMENT

3.1. TESTING ENVIRONMENT SETUP

The Client can be installed on the network or on individual workstation. The advantages and disadvantages for each are indicated below.

Note: eMetric recommends an individual workstation installation to ensure the most optimal testing experience.

	Individual Workstation Install	Network Install
Advantages	No impact on LAN traffic during initial application launch.	Time spent on application installation and configuration would be considerably less. Centralized location for application updates and configuration.
Disadvantages	Time spent on application installation and configuration would be considerably more.	Downloading of the application from network folder to test takers workstation could introduce single point of failure during application launch. Initial application launch could be delayed depending on the LAN traffic and bandwidth.

3.2. NETWORK CONNECTIVITY

All workstations used for student testing should have access to the Internet and should be able to access the servers using HTTP/HTTPS protocols on ports 80 and 443.

1. Firewalls at the local workstation and the network level should allow connectivity on ports 80 and 443.
2. White list the following sites on ports 80 and 443 in content filtering proxies or other locally used proxy software:
 - a. <https://sdap.emetric.net>
 - b. <http://sdap.emetric.net>
 - c. fonts.googleapis.com/
 - d. googleusercontent.com/
 - e. themes.googleusercontent.com/
 - i. If downloading iTester 3™ from the SDAP Training site, white list <https://solutions.emetric.net/SDAPTraining> and <http://solutions.emetric.net/SDAPTraining>
3. If you are working with sandboxing applications (such as Deep Freeze), do one of the following while installing the Client:
 - Choose network folder location for local caching.

- Make sure the default location, such as C:\Users\user\AppData\Local\eMetric (%localappdata%\eMetric) and its contents are not deleted by these applications.

Note: Log files and encrypted response files will only be saved to the indicated location if network connection or Internet connection is lost during test. Students will be able to continue testing without interruption, but their responses will be saved in the indicated folder.

4. Proxy Servers: If Internet connectivity is only available through automatic configuration scripts, the Client should be able to use the same configuration.

3.3. BANDWIDTH

For a typical DSL connection the available bandwidth is 1500 Kbits/sec. (This is variable depending on the type of connection available at each site)

To calculate the number of simultaneous students (x) that can start testing within a timeframe (y) of 60 sec (used as an example), when all students click on '**Continue**' at the same exact time on the clock:

- Bandwidth available in 60 (y) sec = 1500 Kbits/sec X 60 sec = 90000 Kbits
- Average Test Resource Size= 1216 Kbits (example, varies by test)
- Number of Students (x) = 90000/1216 = 74 (approx.)

Over a minute, up to 74 students in a school with a shared T1 connection may simultaneously download and begin a typical test.

3.4. THIN-CLIENT ENVIRONMENTS

When using thin-client environments, such as Terminal Services, Citrix, or LTSP, make sure that there is enough memory, CPU, and bandwidth on the server to accommodate multiple student test sessions. The application requires a minimum of 80 MB of memory per client session and can vary depending on the size and type of the test. Allowing multiple sessions on an improperly sized thin-client environment will lead to poor performance.

Additionally, buildings using thin clients need to be cautious when there is 1 GB or less of physical memory on the workstations. In this case, we highly recommend that you use a local installation. As a general rule, if you can use Chrome to access Gmail or YouTube on all workstations simultaneously, then testing should go well.

In thin-client environments, the accounts students use to log in to the workstations must be unique for each student. Also, each account must have its own dedicated user profile.

4. WINDOWS CLIENT INSTALLATION

To install the Client on all student testing workstations running Windows:

1. Set up your school's testing environment.
2. Download the SDAP Client.
3. Install the downloaded client.

You can also install the Windows client using one of the following methods:

- Windows MSI Package Scripted Installation
- Windows MSI Package Installation via Group Policy
- Windows Network Client Installation

A. SET UP YOUR BUILDING TESTING ENVIRONMENT

Review Testing Environment, above, in detail.

B. DOWNLOAD THE ITESTER 3™ CLIENT

1. Go to the SDAP Portal at <https://sdap.emetric.net> and log in with your user name and password.
2. On the Portal home page, click Administration. The Administration home page appears.

Information for IT Coordinator

Welcome to the iTester Administration module. This module provides access to workstation readiness results, site certification, student information, and test session details.

The Information Technology Coordinator is responsible for installing the iTester Client and performing "Workstation Readiness" tasks before any workstations can be used for testing. For detailed installation and "Workstation Readiness" instructions, please refer to the **iTester Installation and Workstation Readiness Guide** found on the Help tab.

According to workstation configurations at your facility, please download and install the appropriate iTester Client utilizing the links in the table below.

Windows	Student Kiosk for Windows
Mac 10.6-10.10	Student Kiosk for Mac
Linux (64 bit)	Student Kiosk for Linux

Each school will be assigned a unique "Workstation Readiness" username and password. The Information Technology Coordinator will need to use the "Workstation Readiness" username and password assigned for their school to conduct "Workstation Readiness" testing. This login information can be found at the bottom of this page.

If you need additional assistance utilizing this site, please contact eMetric support at support@emetric.net or by calling toll-free (877) 829-7769.

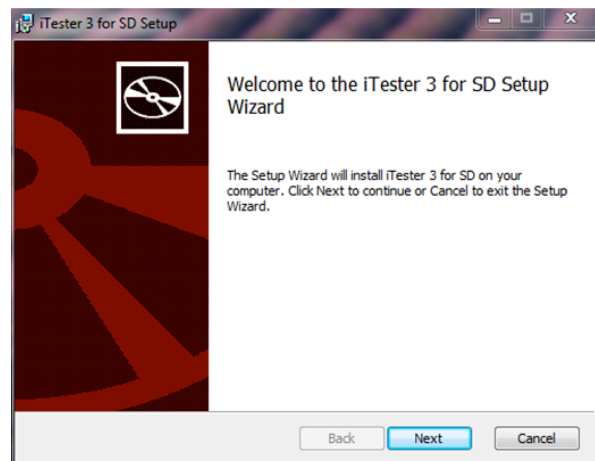
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3. Click **Student Kiosk for Windows**. You see a Download progress bar at the bottom of the page.

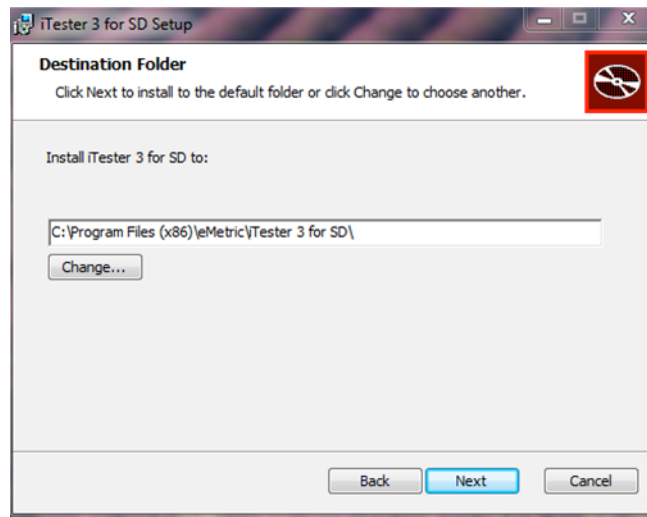
C. INSTALL THE DOWNLOADED CLIENT

Upon completion of the download process:

1. Navigate to the file location you specified during the file save process.
2. Double-click the iTester 3 for South Dakota file to open the welcome screen.
3. Read the instructions and click **Next** to continue.



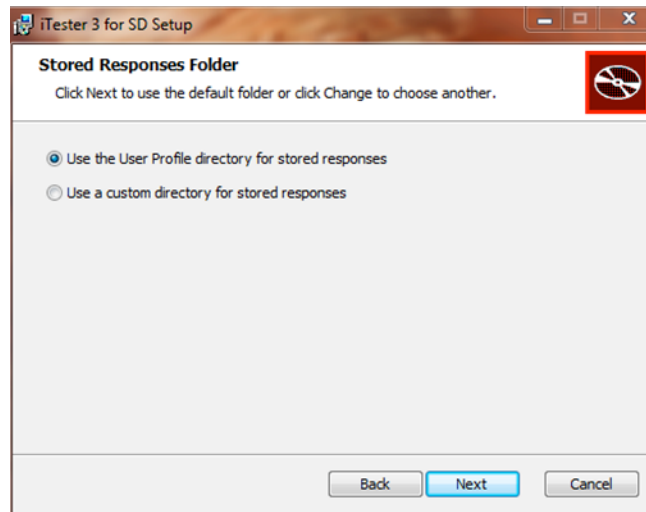
4. Read the end user license agreement in full, click 'I accept the terms in the License Agreement,' and then select **Next**.
5. A default file destination is provided. For users who wish to install to another location, type that destination in the space provided. Please note, you can choose to install the Client in a shared network folder **or** a local folder on the workstation. Click **Next** to continue. Note: If you choose to install the application on a shared network folder, please ensure that you specify a mapped network drive (Example: S:\ITester). UNC paths (Example: \\Server1\location1) are not supported at this time. It is critically important to ensure that all students scheduled to take the test have access to the mapped network drive to be able to launch the application.



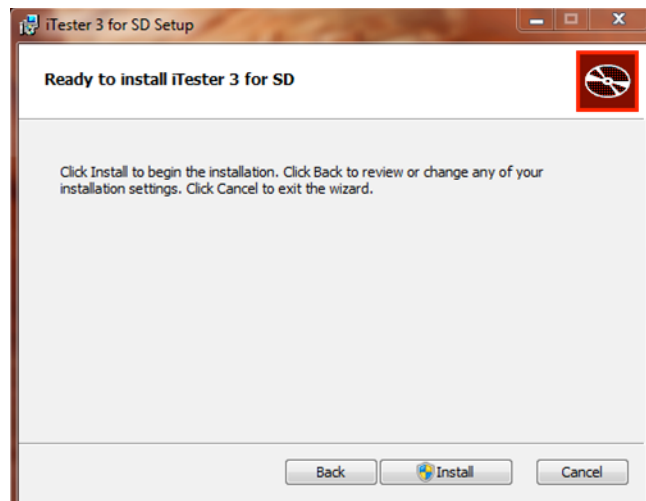
6. Indicate where you would like to store student responses. Utilize radio button selectors to indicate **Use the User Profile directory for stored responses** or **Use a custom directory for stored responses**. If you select **Use a custom directory for stored responses** you must manually enter the alternate path. Click **Next** to continue.

Note: You can choose to install the Client in a shared network folder or a local folder on the workstation. We recommend a local installation to avoid network connection issues (see Network Connectivity).

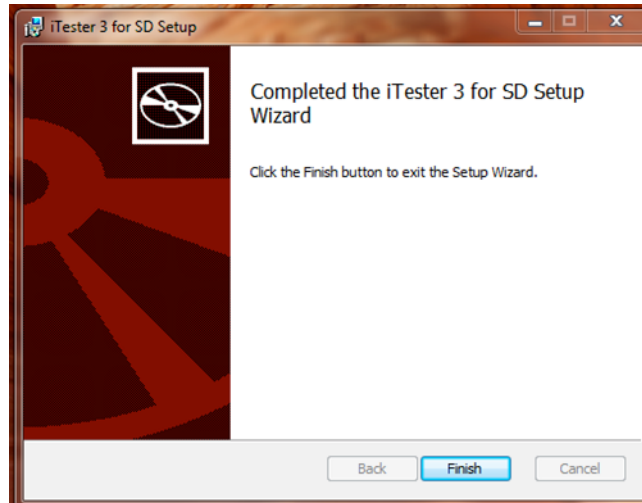
Important: This is the failover location for saving student responses in the event of connectivity issues.



7. Click **Install** to begin the installation.



8. Click **Finish** to complete the installation and exist the set-up wizard. A desktop icon labeled "iTester SD" will automatically be created on the desktop and in the start menu Program List.
Note: If you chose to install the application on a mapped network drive (Example: S:\iTester), you need to ensure that you create and publish relevant shortcuts to the desktop profiles of all students scheduled to take the test. In this case, the shortcut needs to point to a file called "NetworkLaunch.bat" located in the iTester installation directory. Such a shortcut will be in the same folder where iTester was installed and can simply be copied to all client computers.



4.2. WINDOWS MSI PACKAGE SCRIPTED INSTALLATION

A. SCRIPTED INSTALLATION

Network administrators can install the iTester 3™ Client via an installation script to be executed by an Admin account in the machine. The script can be written to run without any human interaction (quiet switch) and to install in the default directory (C:\Program Files) or any target directory of choice. Uninstallation can also be scripted.

Below are generic scripts that can be used for installation and uninstallation.

Script Examples:

<Source> = Complete path to the iTester 3 msi installation file including .msi installation file name.

Example: C:\Downloads\iTester3SD.msi

<Target> = Complete path to the location where iTester 3 should be installed other than the default location (C:\Program Files). Example: C:\iTester\Installation_Dir

<APPDATALOCATION> = Complete path to the location for storing the cache and encrypted student responses created due to network interruptions. Example: D:\Cache.

Note: Please ensure that this location is excluded from system restore software like Deep Freeze.

Installation script: `msiexec /I "<Source>" /quiet INSTALLDIR="<Target>"`

`ITESTERAPPDATALOCATION="<APPDATALOCATION>" INSTALLLEVEL=2`

Example: `msiexec /I "C:\Downloads\iTester3SD.msi" /quiet INSTALLDIR="C:\iTester"`

`ITESTERAPPDATALOCATION="D:\Cache" INSTALLLEVEL=2`

Uninstallation script: `msiexec /X "<Source>" /quiet`

Example: `msiexec /X "C:\Downloads\iTester3SD.msi" /quiet`

Note: Not specifying the 'ITESTERAPPDATALOCATION' will use the local 'Application Data' folder located in the User Profile of the actively logged in user will be used by default. Failure to specify 'INSTALLLEVEL=2' will not create the configuration required for setting the <APPDATALOCATION>

4.3. WINDOWS MSI PACKAGE INSTALLATION VIA GROUP POLICY

Network administrators can use Microsoft Active Directory Group Policy to distribute iTester 3™ MSI package seamlessly to all client computers.

Please follow the step-by-step instructions described in the following Knowledge Base article:
<http://support.microsoft.com/kb/816102>.

Note: Default installation locations will be used when using Group Policy to distribute iTester 3™. This option will also not allow systematically specifying a network location for caching and storing encrypted student responses created due to network interruptions. The local 'Application Data' folder located in the User Profile of the actively logged in user will be used by default.

4.4. WINDOWS NETWORK CLIENT INSTALLATION

To install the iTester 3™ Client on a network:

1. Complete the local Client installation listed above on the machine that will host the application.
2. Configure the stored response location to network share or leave as default during installation.
3. Locate and distribute the shortcut in the installation folder to the workstations used for testing.
4. Ensure that users have read/write access to stored response directory configured in Step 2.
5. Ensure that users have read/write permission to their own user profile, where the application will be copied to and run from.

Individual workstations require read and write permissions to %TEMP%\eMetric as the program is copied into the local %TEMP% profile by default on first-time launch from a network location. Workstations without the specified read and write permissions to %TEMP%\eMetric will experience a Windows Error Code 1260 upon first-time launch in a Network Client Installation.

5. MAC CLIENT INSTALLATION

To install the Client on all student-testing Mac workstations:

1. Set up your school's testing environment.
2. Download the SDAP Client.
3. Install the downloaded client.

Note: An installer for Mac 10.5 is available upon request.

A. SET UP YOUR BUILDING TESTING ENVIRONMENT

Review Testing Environment, above, in detail.

B. DOWNLOAD THE ITESTER 3™ CLIENT

1. Go to the SDAP Portal at <https://sdap.emetric.net> and log in with your user name and password.
2. On the Portal home page, click Administration. The Administration home page appears.

Information for
IT Coordinator

Welcome to the iTester Administration module. This module provides access to workstation readiness results, site certification, student information, and test session details.

The Information Technology Coordinator is responsible for installing the iTester Client and performing "Workstation Readiness" tasks before any workstations can be used for testing. For detailed installation and "Workstation Readiness" instructions, please refer to the **iTester Installation and Workstation Readiness Guide** found on the Help tab.

According to workstation configurations at your facility, please download and install the appropriate iTester Client utilizing the links in the table below.

Windows	Student Kiosk for Windows
Mac 10.6-10.10	Student Kiosk for Mac
Linux (64 bit)	Student Kiosk for Linux

Each school will be assigned a unique "Workstation Readiness" username and password. The Information Technology Coordinator will need to use the "Workstation Readiness" username and password assigned for their school to conduct "Workstation Readiness" testing. This login information can be found at the bottom of this page.

If you need additional assistance utilizing this site, please contact eMetric support at support@emetric.net or by calling toll-free (877) 829-7769.

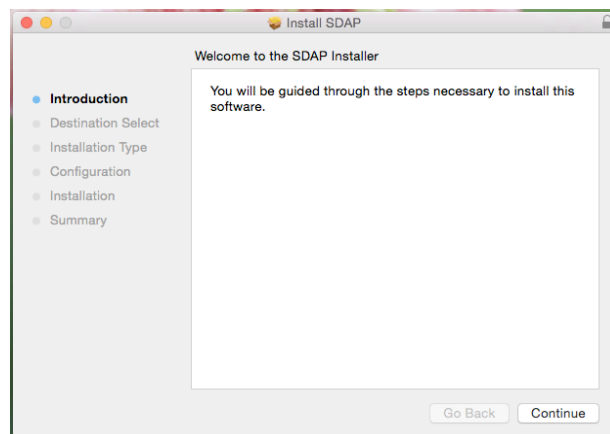
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- Click **Student Kiosk for Mac**. You see a Download progress bar at the bottom of the page.

C. INSTALL THE DOWNLOADED CLIENT

Upon completion of the download process:

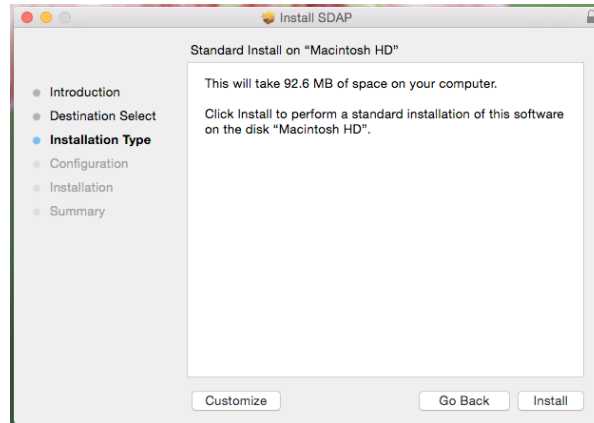
- Navigate to the file location you specified during the file save process.
- Read the instructions and click **Continue**.



- Select the destination directory for the Client and click **Continue**.

Note: You can choose to install the Client in a shared network folder or a local folder on the workstation. We recommend a local installation to avoid network connection issues (see Network Connectivity).

- Verify the installation type.

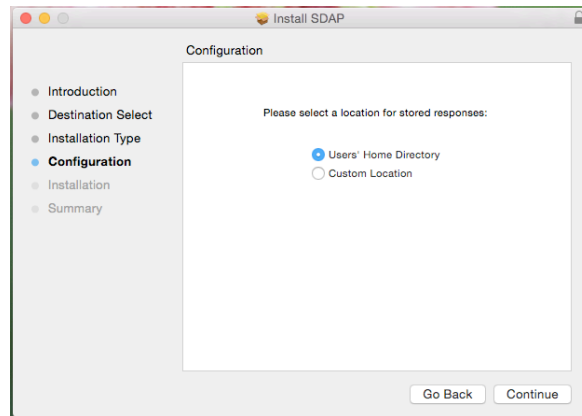


Note: To customize the installation, click **Customize**.

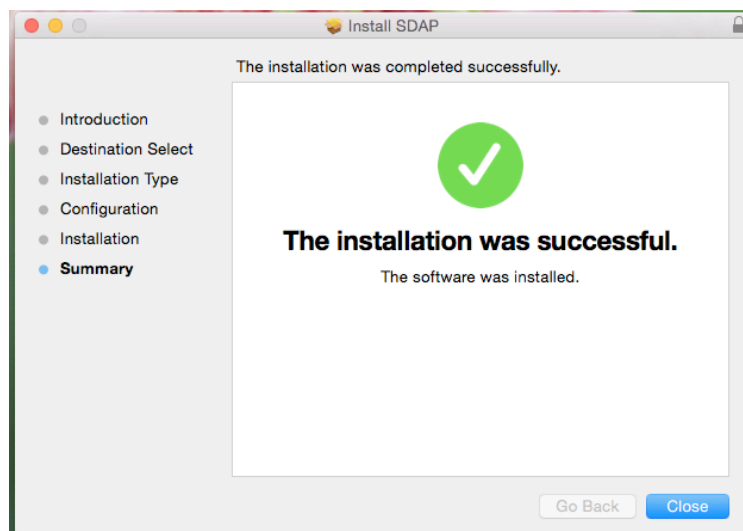
5. When you are ready, click **Install**.

Note: You may be required to enter a password.

6. Indicate where you would like to store student responses, and then click **Continue**.



7. When the installation is complete, click **Close**.



6. LINUX CLIENT INSTALLATION

To install the Client on all student-testing Linux workstations:

1. Set up your school's testing environment.
2. Download the SDAP Client.
3. Install the downloaded client.

Important: If you have a Linux workstation running Fedora 14, install the software dependency "espeak".

A. SET UP YOUR BUILDING TESTING ENVIRONMENT

Review Testing Environment, above, in detail.

B. DOWNLOAD THE ITESTER 3™ CLIENT

1. Go to the SDAP Portal at <https://sdap.emetric.net> and log in with your user name and password.
2. On the Portal home page, click Administration. The Administration home page appears.

Information for IT Coordinator

Welcome to the iTester Administration module. This module provides access to workstation readiness results, site certification, student information, and test session details.

The Information Technology Coordinator is responsible for installing the iTester Client and performing "Workstation Readiness" tasks before any workstations can be used for testing. For detailed installation and "Workstation Readiness" instructions, please refer to the **iTester Installation and Workstation Readiness Guide** found on the Help tab.

According to workstation configurations at your facility, please download and install the appropriate iTester Client utilizing the links in the table below.

Windows	Student Kiosk for Windows
Mac 10.6-10.10	Student Kiosk for Mac
Linux (64 bit)	Student Kiosk for Linux

Each school will be assigned a unique "Workstation Readiness" username and password. The Information Technology Coordinator will need to use the "Workstation Readiness" username and password assigned for their school to conduct "Workstation Readiness" testing. This login information can be found at the bottom of this page.

If you need additional assistance utilizing this site, please contact eMetric support at support@emetric.net or by calling toll-free (877) 829-7769.

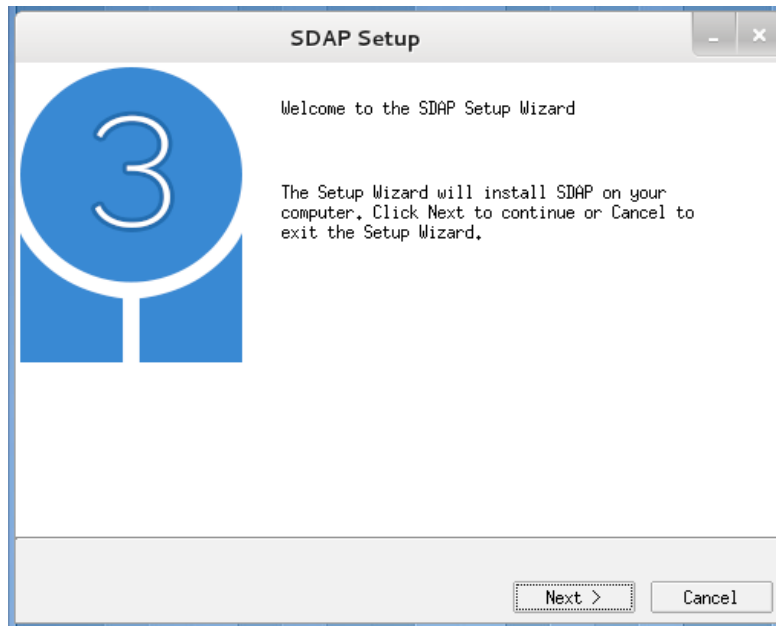
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3. Click **Student Kiosk for Linux**. You see a Download progress bar at the bottom of the page.

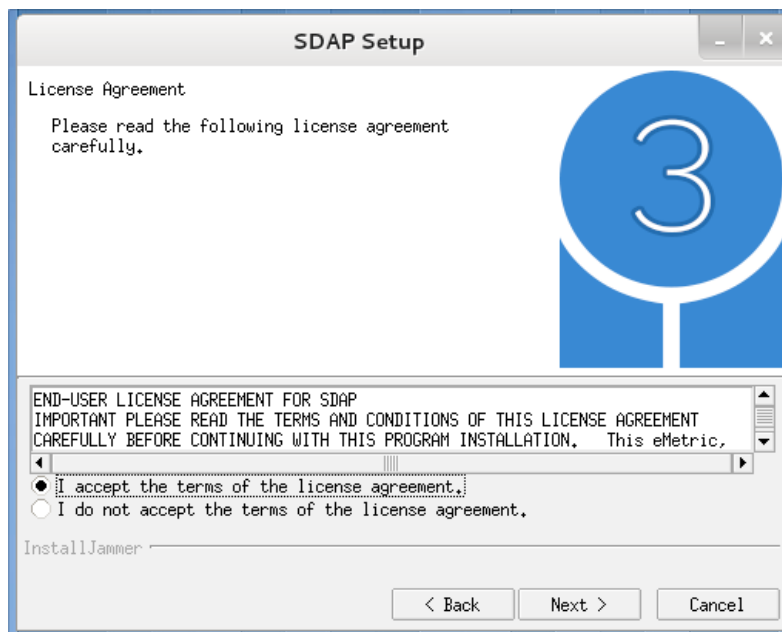
C. INSTALL THE DOWNLOADED CLIENT

Upon completion of the download process:

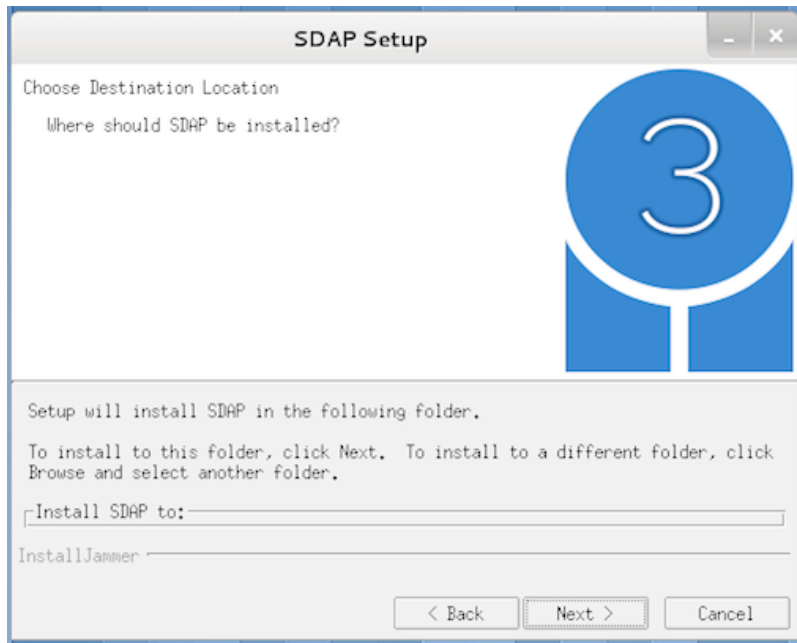
1. Launch a terminal, navigate to the Client installer file, and execute.
2. Read the instructions and click **Next**.



3. Read the License Agreement, then select the **I accept the terms of the license agreement** checkbox and click **Next** to continue.



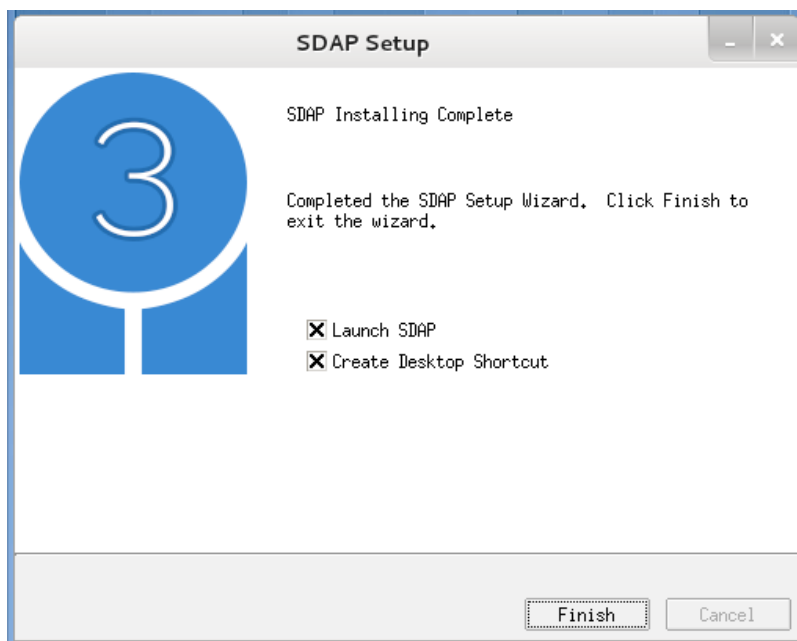
4. Verify the installation folder is correct, click **Next** to continue.



Tip: If it is not correct, click Browse to find the destination where the Client should be installed. We recommend a local installation to avoid network connection issues (for more information, see Network Connectivity).

Note: This will also be the cache location to save student responses.

5. Review the settings before the installer begins to copy files, and then click **Next**.
6. Click **Finish** to exit Setup.



7. IPAD APPLICATION INSTALLATION

The SDAP app is available as a free download from the Apple App Store. To install the SDAP app:

1. Download the SDAP iTester 3™ app from the Apple App Store.
 - a. Open the App Store on the iPad.
 - b. Search for iTester 3.
2. When you locate the SDAP iTester 3™ app, click to download it to the iPad.

8. CHROMEBOOK APPLICATION INSTALLATION

These instructions are for installing the SDAP iTester 3™ app onto individual, non-managed Chromebooks. For instructions on installing the app onto managed Chromebooks, please contact eMetric support.

To install the iTester 3™ app:

1. Using the Chromebook, download the iTester 3™ app from the Google Chrome Web Store.
2. Click **+Free** to download and install the app.
3. Once you have followed the instructions available in the For non-managed devices section, reboot the Chromebook device.
4. On the login screen and prior to logging in, click **Apps** at the bottom-left of the screen.
5. To launch the app, select the iTester 3™ icon.

9. ANDROID APPLICATION INSTALLATION

To install the SDAP Android app:

1. Open the Appstore.
2. Search for iTester 3.
3. Click to download it to the Android device.

10. WORKSTATION READINESS TESTING AND SITE CERTIFICATION

10.1. PURPOSE

Workstation Readiness (WSR) provides a means to identify potential technical problems prior to student testing.

Information Technology Coordinators will launch the iTester Client on each workstation configuration being used for testing and run the *Workstation Readiness* test. The test is designed to simulate a test scenario and is used to verify that workstations meet the minimum requirements and have been properly configured.

10.2. WORKSTATION READINESS TESTING

It is crucial that WSR be performed on **every** workstation or workstation configuration that is to be used for testing. iTester will capture and display the results for each workstation on the **Site Setup** tab within the Administration component of SDAP.

To test every workstation configuration:

1. Find the Workstation Readiness account information (available within the Administration component to IT Coordinators).
 - a. This information is available to IT Coordinators at the bottom of the home page within the Administration component.
 - b. Make a note of the username and password for your building. This will be used to log in to the iTester 3™ Client.
2. Authenticate every workstation or workstation configuration to be used for testing.

A. AUTHENTICATING WORKSTATIONS

To authenticate each workstation or workstation configuration to be used for testing, follow the steps listed below:

1. Launch the Client from the desktop shortcut or the start menu.
2. Log in to the Client with the Workstation Readiness username and password provided for your building.

Important: Use the WSR login credentials exclusively for WSR testing in your building only. Do not use the WSR credentials for any other purpose or for any other building.
3. Review the Authentication Screen to confirm your building name, and then locate the Workstation Readiness test.
4. Click the blue session button at the bottom of the page to begin the Workstation Readiness test.
5. Click **Continue** to get started.
6. After you have responded to all items, click **Finish**.
7. When you are ready to submit your test, click **Turn In** to continue, or click **Return to test** to return to the Test Review page. If you click **Turn In**, you return to the Session Selection page, where the test session is grayed out.
8. Click **Exit** in the top-right corner of the page.

10.3. SITE CERTIFICATION

After all workstations or workstation configurations have successfully completed the Workstation Readiness test, the site must be certified for testing.

1. Go to SDAP at <https://sdap.emetric.net> and log in with your user name and password.
2. Click **Administration**.
3. Click **Site Setup** at the top of the page.
4. On the Site Setup page, locate the building to be certified, and then click the entry in the Number of Devices Tested column. The site details page appears.
5. Verify that all of the devices for this building have successfully taken the Workstation Readiness Test.
6. In the Site Certification section, click **Certify Site Readiness**, and then click **Yes** to confirm.
7. The Site Setup page displays the date/time when the site was certified and the user name of the user who certified the site for testing.